BENIGN SCHWANNOMA TAIL OF PANCREAS (A Case Report)

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Introduction

Benign pancreatic tumours are rare. The commonest functioning benign tumour of the pancreas is the insulinoma and the commonest non-functioning (exocrine, non-islet cell) benign tumour is a cystadenoma. Pancreatic schwannoma is almost invariably associated with Von-Recklinghausen's disease, and if so, is usually malignant [1].

CASE REPORT

A 27-year-old woman presented with a dull localised pain in the left upper abdomen of one year duration. The pain was not related to food, bowel habits or change of posture. There were no symptoms related to the urinary tract, dyspepsia or hypoglycemia. There was no past history of severe abdominal pain, abdominal injury or loss of weight. General and systemic examination was unremarkable. Palpation of the abdomen revealed a firm, globular, non-tender lump 10 cm in diameter in the left hypochondrium. It was fixed, not ballotable and did not fall forward in the knee-elbow position. There was no hepatosplenomegaly or shifting dullness. No lumps or nodules were palpable anywhere else in the body.

Routine haematological and biochemical investigations were within normal limits. On intravenous urography (IVU) the left kidney was found to have grade-2 hydronephrotic changes and its upper pole was displaced laterally. Ultrasonography (USS) of the upper abdomen revealed a mass of mixed echogenicity in association with the tail of the pancreas lying medial to the upper pole of the left kidney. Double contrast computerised tomography (CT) of the abdomen showed a 7.5 x 6 x 6 cm globular mass in relation to the tail of pancreas with a well defined outer margin consisting of irregular cystic and solid areas with several fine separations and

a burst pattern of calcification. CT attenuation values varied between 5 to 30 H. Both kidneys, and liver and spleen were normal (Fig 1). A provisional diagnosis of cystadenoma of the pancreas was made since the USS guided fine needle aspiration cytology (FNAC) was inconclusive.

Exploratory laparotomy through a transverse supraumbilical incision revealed a firm, grey-white, globular mass in the tail of the pancreas. There was no ascitis, para-aortic lymphadenopathy or evidence of secondaries in the liver. The spleen was normal. The well-encapsulated tumour was dissected in toto from the pancreatic tail by blunt and sharp dissection. The rent in the pancreas was repaired with 1/0 interrupted silk sutures. The tumour was 7.5 x 5.5 x 5.5 cm and weighed 130 gm. Histopathology revealed a fibrous capsule, Antoni A and Antoni B areas with formation of numerous verocay

Fig. 1 : Computed tomography scan abdomen showing a mass lesion of mixed attenuation in tail of pancreas, with normal head and body.

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Fig. 2 : Photomicrograph showing characteristic antoni type A and antoni type B, with spindle shaped cells palisading to form verocay bodies

bodies, degenerative cysts, necrosis, calcification and no malignant changes (Fig 2), suggestive of benign schwannoma of the pancreas. Postoperative period was uneventful. The patient has been followed up for one year and has remained symptom free. A repeat USS abdomen did not reveal any evidence of recurrence or pseudopancreatic cyst formation and there was complete reversal of hydronephrotic changes in the left kidney.

Discussion

Schwann cell tumours were described and named neurilemmoma by Stout and Carson in 1935 [2]. They are usually chance findings at autopsy and hence often not reported. Schwannoma has been described in the esophagus, stomach, duodenum, small bowel, appendix, large bowel, retroperitoneum, lesser sac, fallopian tube, vagina, larynx and liver [3-6].

Pancreatic schwannomas arise from either the sympathetic or parasympathetic nerve fibres, both of which course through the pancreas via the vagus nerve [7]. Schwannomas may be solitary or multiple and may arise from any portion of the gland. Rarely do they interfere with its endocrine or exocrine functions. While smaller tumours are solid, larger ones may undergo necrosis and hemorrhagic degeneration. Tumours with pronounced degenerative changes including cyst formation, calcification, or haemorrhage due to vascular thrombosis and subsequent necrosis are referred to as "ancient schwannomas" [8]. Studies have shown that USS, CT and magnetic resonance imaging (MRI) cannot distinguish

benign from malignant nerve sheath neoplasms with any degree of certainty [1] yet play an important part in defining the relationship with adjoining viscera [9]. CT attenuation values vary from 5-40H depending upon the degree of necrosis, cystification, calcification or hemorrhage [1,3]. For a complete evaluation angiography and endoscopic retrograde cholangiopancreatography may also be required [1,9]. Ga 67 scintigraphy appears a promising screening technique as its uptake occurs in malignant but not in benign schwannoma [9].

Microscopic distinction from other spindle cell tumours is based upon the microscopic findings of a true fibrous capsule, antoni type A and B areas and the formation of verocay bodies. In doubtful cases immunohistochemical staining for S100 protein is confirmatory [4].

The treatment is surgical excision, either by enucleation, wedge resection or distal pancreatectomy, with or without splenectomy to confirm the diagnosis and exclude malignancy.

REFERENCES

1. Douglas AB, Tyagi G, Bader DA. Benign schwannoma of the pancreas. *Am J Radiol* 1992; 159 : 675.
2. Stout AP, Carson W. The peripheral manifestations of the specific nerve sheath tumour (neurilemmoma). *Am J Cancer* 1935; 24 : 751-96.
3. Urban BA, Fishman EK, Hruban RH, Cameron JL. CT findings in cystic schwannoma of the pancreas. *J Comput Assist Tomogr* 1992; 16 : 492-3.
4. Hytiroclou P, Linton P, Klion F, Schwartz M, Miller C, Thung SN. Benign schwannoma of the liver. *Arch Pathol Lab Med* 1993; 117 : 216-8.
5. Kazmi KA. An unusual case of duodenal neurilemmoma. *JPMA* 1990; 40 : 247-8.
6. Terada S. Vaginal schwannoma. *Arch Gynecol Obstet* 1992; 251 : 203-6.
7. Kloppel G, Heitz PU. *Pancreatic Pathology*. New York : Churchill Livingstone, 1984; 6-7.
8. Enzinger FM, Weiss SW. *Soft tissue tumours*. 2nd ed. St. Louis : CV Mosby 1988; 734.
9. Levine E, Huntrakoon M, Wetzel LH. Malignant nerve-sheath neoplasms in neurofibromatosis : Distinction from benign tumours by using imaging techniques. *Am J Radiol* 1987; 149 : 1059-64.